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| EXAMINER |
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YANG, CHIN JU

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2169

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07/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,749

Applicant(s)

FISCHER ET AL.

Examiner

Chin-ju Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15 and 17-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15 and 17-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :03/07/05, 07/13/06, and 06/19/07.

DETAILED ACTION

1. This Office Action is in response to Application No. 10/526,749 filed on March 07, 2005. Claims 1-13, 15, 17-38 are pending in this application.
2. The specification and the claims have been examined with the results that follow.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on March 07, 2005, August 28, 2006, and June 19, 2007 have been placed in the application file. As required by MPEP 609(c), the applicant's submission is acknowledged by the examiner and the cited references therein have been considered as to the merits.

Specification

4. The disclosure is objected to because of the following informalities:
 - a. Page 4, line 24, the examiner suggests to replace "programm" with --program--.

Appropriate correction is required.

Claim Objections

5. Claim 8 is objected to because of the following informalities:
 - a. In claim 8, line 4, the examiner suggests to replace "an ID" with --the ID--.

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Appropriate correction is required.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-38 are rejected on the ground of nonstatutory double patenting over claims 1-33 of U. S. Patent No. 7,222,142, since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application No. 10/526,749 of claims 1, 13, 15, and 28 are disclosed and covered by claims 1, 5, 15, 16, 20, and 31 found in the U.S. Patent No. 7,222,142, except for the limitation **"deleting the ID from the first lock object after the respective data object assigned to that ID has been deleted from the first storage location"**. The reference U.S. PG-Pub No. 2003/0004975

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discloses the DBMS acceptance section 600 accepts a notification indicative of the data insert completion (step S1107) and issues a delete request to delete the insert original data (step S1108) (see para 0104, lines 4-7). Therefore, it would have been obvious to delete the ID after the data object has been deleted from the first storage location as taught by reference U.S. PG-Pub No. 2003/0004975 and it would provide a database system, database management method and program, which, even during data rebalance execution of table data, can perform acceptance and execution of a database processing request such as search, update, delete or insert concurrently with the rebalance execution and with improved operability and performance of a database (see para 0009, lines 2-7).

Thus, this is a obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3-13, 15, 18-28, 30-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson et al. (US 5,548,750) in view of Nakano (US PG-Pub 2003/0004975).

As per claim 1, Larsson et al. disclose a method for moving data objects in a computer system from a first storage location to a second storage location, comprising:

a) selecting one or more data objects having an identifier (ID) from the first storage location **as [Fig. 1, elements A' and C']**;

b) storing the ID in a second lock object **as [objects in question have, according to FIG. 6, been backup marked in the LID table of the local dam base; col 6, lines 45-47]**;

c) determining whether the ID is stored successfully in the second lock object and, upon a successful storage, storing the ID in a first lock object **as [Copying objects to the backup area will, however, not start until the local data base handler has made all changes from transactions to be included in the backup visible in the data base; col 6, lines 14-17]**;

d) storing a data object the ID of which is contained in the first lock object at the second storage location **as [If it is equal to "include" the object will be copied to the backup area, if it is equal to "exclude" the object will not be copied but the value of the variable is set to "Include" as a preparation for the next backup; col 8, lines 7-11]**;

e) deleting the data object the ID of which is contained in the first lock object, from the first storage location **as [Fig. 2, element Throw old object]**; and

g) deleting the ID from the second lock object after a particular ID has been stored in the first lock object **as [If it is equal to "include" the object will be copied to the backup area, if it is equal to "exclude" the object will not be copied but the**

value of the variable is set to "Include" as a preparation for the next backup; col 8, lines 7-11; Fig. 14, col 2, row 2, dbrecord is removed from the LID table].

Larsson et al. disclose moving data objects in a computer system from a first storage location to a second storage location, as described in the previous paragraph. However, Larsson et al. do not explicitly teach deleting the ID from the first lock object.

Nakano teaches f) deleting the ID from the first lock object after the respective data object assigned to that ID has been deleted from the first storage location ***as [the DBMS acceptance section 600 accepts a notification indicative of the data insert completion (step S1107) and issues a delete request to delete the insert original data (step S1108); para 0104, lines 4-7].***

Larsson et al. and Nakano are analogous are because they are in the same general field transferring files between two storage locations.

At the time when the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Larsson et al. to adapt the deletion of the original data object after its copied to a second storage area.

The motivation for doing so would have been to provide a database system, database management method and program, which, even during data rebalance execution of table data, can perform acceptance and execution of a database processing request such as search, update, delete or insert concurrently with the rebalance execution and with improved operability and performance of a database, as suggested by Nakano [para 0009, lines 2-7].

As per claim 3, Larsson et al. disclose the data object is stored in one or more files and wherein an assignment of the ID to the file or to a name of the file, in which the data object assigned to the ID is stored, is stored in the first lock object **as [Fig. 11, element LID table for Backup handler]**.

As per claim 4, the rejection of claim 1 incorporated, and further Nakano discloses the first lock object is stored on a nonvolatile storage means **as [DBMS acceptance program 310a and DBMS execution programs 320a to 320c are usually stored in a recording medium including an optical disc; para 0045, lines 1-3]**.

As per claim 5, Larsson et al. disclose the ID is stored in the second lock object immediately after the step of selecting one or more data objects having an identifier from the first storage location for the respective data object **as [Fig. 11, LID table for Data Base handler]**.

As per claim 6, Larsson et al. disclose the ID of the selected data object is stored in the second lock object before the data object assigned to that ID is stored **as [When all objects in the LID table have been copied the objects in the backup buffer will be copied to the backup area; col 8, lines 11-13]**.

As per claim 7, Larsson et al. disclose storing the ID in the first lock object further

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comprises:

storing IDs of all selected data objects stored in the first lock object before a first storing process according to step d) is started **as [Fig. 8, element 140]**.

As per claim 8, Larsson et al. disclose checking whether an ID for the data object has been stored in a first lock object and if the data object has been stored, skipping at least step d) for that data object **as [Fig. 11, Pointers from LID table in Data Base Handler to LID table in Backup handler for Obj. B and Obj. C]**.

As per claim 9, Larsson et al. disclose checking whether the data object is contained in the second storage location and if the data object is contained in the second storage location, skipping at least step d) for that data object **as [the data base points to the objects B and D in the backup area 4, indicated by arrows 14 and 16; col 4, lines 45-47]**.

As per claim 10, Larsson et al. disclose the checking is performed by querying the first lock object **as [a "BackupSynch" variable which can take the values "Include" or "Exclude" and the value of which is used by the local data base handler and by the local backup handlers to decide whether objects shall be included in a backup or not; col 3, lines 1-5]**.

As per claim 11, Larsson et al. disclose determining whether the data object was

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stored in the first lock object successfully and, upon unsuccessful storage, checking whether the data object assigned to the respective ID has been completely stored in the second storage location, and if the respective ID has not been completely stored, skipping at least steps e) and f) for that data object and deleting the ID from the first lock object **as [Fig. 3, Backup failed and then led to the stop of operation since not all database handlers had acknowledged to create backups].**

As per claim 12, Larsson et al. disclose for use in an enterprise resource planning software **as [backing up in a distributed real time data base on primary memory in operation, all data in the data base are structured as belonging to one of several logic data bases; abstract, lines 1-3].**

As per claim 13, Larsson et al. disclose a computer system for processing data comprising:

memory means for storing program instructions **as [primary memory backup of a data base, where the invention can be used; col 3, lines 63-65];**

input means for entering data **as [a user 30 by sending an instruction 32; col 4, line 67 to col 5, line 1];**

storage means for storing data **as [storing objects located in the current logic data base; col 2, line 61];**

a processor responsive to the program instructions, wherein the program instructions comprise program code means for performing a method for moving data

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objects in the computer system from a first storage location to a second storage location **as [a backup system for a real time data base on primary memory in operation, the data base being distributed over a number of processors which execute the different functionalities, such as different steps and features; col 2, lines 15-18],** the method comprising:

selecting one or more data objects having an identifier (ID) from the first storage location **as [Fig. 1, elements A' and C'];**

storing the ID in a second lock object **as [objects in question have, according to FIG. 6, been backup marked in the LID table of the local dam base; col 6, lines 45-47];**

determining whether the ID is stored successfully, and upon a successful storage, storing the ID in a first lock object **as [Copying objects to the backup area will, however, not start until the local data base handler has made all changes from transactions to be included in the backup visible in the data base; col 6, lines 14-17];**

storing a data object, the ID of which is contained in the first lock object, at the second storage location **as [If it is equal to "include" the object will be copied to the backup area, if it is equal to "exclude" the object will not be copied but the value of the variable is set to "Include" as a preparation for the next backup; col 8, lines 7-11];**

deleting the data object, the ID of which is contained in the first lock object, from the first storage location **as [Fig. 2, element Throw old object];** and

deleting the ID from the second lock object after a particular ID has been stored in the first lock object **as [If it is equal to "include" the object will be copied to the backup area, if it is equal to "exclude" the object will not be copied but the value of the variable is set to "Include" as a preparation for the next backup; col 8, lines 7-11; Fig. 14, col 2, row 2, dbrecord is removed from the LID table].**

Larsson et al. disclose moving data objects in a computer system from a first storage location to a second storage location, as described in the previous paragraph. However, Larsson et al. do not explicitly teach deleting the ID from the first lock object.

Nakano teaches deleting the ID from the first lock object after the respective data object assigned to that ID has been deleted **as [the DBMS acceptance section 600 accepts a notification indicative of the data insert completion (step S1107) and issues a delete request to delete the insert original data (step S1108); para 0104, lines 4-7].**

Larsson et al. and Nakano are analogous are because they are in the same general field transferring files between two storage locations.

At the time when the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Larsson et al. to adapt the deletion of the original data object after its copied to a second storage area.

The motivation for doing so would have been to provide a database system, database management method and program, which, even during data rebalance execution of table data, can perform acceptance and execution of a database processing request such as search, update, delete or insert concurrently with the

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rebalance execution and with improved operability and performance of a database, as suggested by Nakano [para 0009, lines 2-7].

As per claim 15, Larsson disclose a computer readable medium comprising instructions for performing a method for moving data objects in a computer system from a first storage location to a second storage location, that corresponds to the method of claim 1 **as [Above and in the description given below with reference to embodiments, as well as in the drawings, different functionalities are referred to as "handlers", such as data base handler, backup handler, etc., "logic data base", etc. Such functionalities are programs or steps executed by the computers involved; col 4, lines 17-22]**. Therefore this claim is rejected for the same reason set forth in the rejection of claim 1.

As per claim 18, this is a computer readable medium claim corresponding to the method of claim 3 and is thus rejected for the same reason set forth in the rejection of claims 3 and 15.

As per claim 19, this is a computer readable medium claim corresponding to the method of claim 4 and is thus rejected for the same reason set forth in the rejection of claims 4 and 15.

As per claim 20, this is a computer readable medium claim corresponding to the

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method of claim 5 and is thus rejected for the same reason set forth in the rejection of claims 5 and 15.

As per claim 21, this is a computer readable medium claim corresponding to the method of claim 6 and is thus rejected for the same reason set forth in the rejection of claims 6 and 15.

As per claim 22, this is a computer readable medium claim corresponding to the method of claim 7 and is thus rejected for the same reason set forth in the rejection of claims 7 and 15.

As per claim 23, this is a computer readable medium claim corresponding to the method of claim 8 and is thus rejected for the same reason set forth in the rejection of claims 8 and 15.

As per claim 24, Larsson et al. disclose checking whether the data object is contained in the second storage location, and if the data object is contained in the second storage location, skipping the storing of the data object **as [the data base points to the objects B and D in the backup area 4, indicated by arrows 14 and 16; col 4, lines 45-47]**, the ID of which is contained in the first lock object, at the second storage location, for that data object **as [Fig. 11, Pointers from LID table in Backup area to LID table in Backup handler for Obj. B and Obj. C].**

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As per claim 25, this is a computer readable medium claim corresponding to the method of claim 10 and is thus rejected for the same reason set forth in the rejection of claims 10 and 15.

As per claim 26, this is a computer readable medium claim corresponding to the method of claim 11 and is thus rejected for the same reason set forth in the rejection of claims 11 and 15.

As per claim 27, Larsson et al. disclose the computer readable medium is provided as part of a computer program product ***as [Such functionalities are programs or steps executed by the computers involved; col 4, lines 19-21].***

As per claim 28, this is a computer system claim corresponding to the computer readable medium of claim 15 and is thus rejected for the same reason set forth in the rejection of claim 15.

As per claim 30, this is a computer system claim corresponding to the computer readable medium of claim 18 and is thus rejected for the same reason set forth in the rejection of claim 18.

As per claim 31, this is a computer system claim corresponding to the computer readable medium of claim 19 and is thus rejected for the same reason set forth in the

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rejection of claim 19.

As per claim 32, this is a computer system claim corresponding to the computer readable medium of claim 20 and is thus rejected for the same reason set forth in the rejection of claim 20.

As per claim 33, this is a computer system claim corresponding to the computer readable medium of claim 21 and is thus rejected for the same reason set forth in the rejection of claim 21.

As per claim 34, this is a computer system claim corresponding to the computer readable medium of claim 22 and is thus rejected for the same reason set forth in the rejection of claim 22.

As per claim 35, this is a computer system claim corresponding to the computer readable medium of claim 23 and is thus rejected for the same reason set forth in the rejection of claim 23.

As per claim 36, this is a computer system claim corresponding to the computer readable medium of claim 24 and is thus rejected for the same reason set forth in the rejection of claim 24.

As per claim 37, this is a computer system claim corresponding to the computer readable medium of claim 25 and is thus rejected for the same reason set forth in the rejection of claim 25.

As per claim 38, Larsson et al. disclose means for determining whether the data object was stored in the first lock object successfully **as [Fig. 3, Backup failed and then led to the stop of operation since not all database handlers had acknowledged to create backups];**

means for checking, upon unsuccessful storage in the first lock object, whether the data object assigned to the respective ID has been completely stored in the second storage location **as [Fig. 3, Backup failed and then led to the stop of operation since not all database handlers had acknowledged to create backups];** and

means for skipping, if the respective ID has not been completely stored, the deleting of the data object from the first storage location and the deleting of the ID from the first lock object after the respective data object assigned to that ID has been deleted for that data object, and deleting the ID from the first lock object **as [Fig. 3, Backup failed and then led to the stop of operation since not all database handlers had acknowledged to create backups].**

9. Claims 2, 17, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson et al. (US 5,548,750) and Nakano (US PG-Pub 2003/0004975) and further in

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view of Teng et al. (US 6,944,615).

As per claim 2, Larsson et al. and Nakano disclose the claimed invention as detailed in the previous paragraphs. However, Larsson et al. do not explicitly teach using database tables as data objects.

Teng et al. teach each data object comprises one or more fields of one or more tables, and wherein the ID comprises one or more key fields of the one or more tables ***as [To provide organization of the database, a unique key index 42 is maintained, with separate indexes for each table. Thus, the unique key index 42 includes an inventory table index 44, a sales table index 46, and a human resources table index 48; col 2, lines 6-10].***

Larsson et al. and Teng et al. are analogous are because they are in the same general field of managing locks on transactions performed in a database environment.

At the time when the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Larsson et al. to specify tables and utilize their attributes when applying information back up in a distributed database.

The motivation for doing so would have been that it was known in the art that tables are a form of database objects that represents a collection of interrelated data. Tables are accessible for transactions, such reading/writing, performed with regard to information stored in the database.

As per claim 17, this is a computer readable medium claim corresponding to the

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method of claim 2 and is thus rejected for the same reason set forth in the rejection of claims 2 and 15.

As per claim 29, this is a computer system claim corresponding to the computer readable medium of claim 17 and is thus rejected for the same reason set forth in the rejection of claim 17.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111 (c) to consider these references fully when responding to this action. The documents cited therein teach managing object transactions from different locations.

11. The examiner requests, in response to this Office action, support to be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chin-ju Yang whose telephone number is 571-272-9783. The examiner can normally be reached on Monday Through Friday, 8:30AM to 6:00PM EST.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre Vital can be reached on 571-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 18, 2007



Chin-ju Yang
Art Unit 2169



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